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Attorney Docket No. 9180-30

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Jong-Rong Jan et al.

Confirmation No.: 1502

Application No.: 10/780,529

Group Art Unit: 2818

Filed: February 17, 2004

Examiner: Chuong A. Luu

For: *Methods Of Selectively Bumping Integrated Circuit Substrates And Related Structures*

Date: November 10, 2005

Mail Stop Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

PURSUANT TO 37 C.F.R. §1.97(c)

Sir:

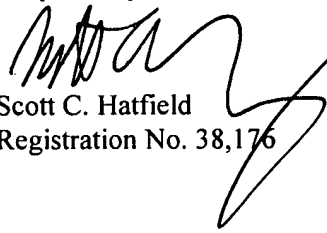
Attached is a list of documents on Form PTO-1449, together with a copy of any listed foreign patent document and/or non-patent literature. A copy of any listed U.S. patent and/or U.S. patent application publication is not provided herewith in accordance with the amendment by the U.S. Patent and Trademark Office to 37 C.F.R. § 1.98(a)(2)(ii) effective October 21, 2004.

This Information Disclosure Statement is submitted in accordance with 37 C.F.R. § 1.97(c), before final Office Action or Allowance, whichever is earlier.

In accordance with the requirements of 37 C.F.R. § 1.97(c)(2), a check for the \$180.00 fee specified in 37 C.F.R. § 1.17(p) is enclosed. This amount is believed to be correct. However, the Commissioner is authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-0220.

It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. §1.56 and Section 609 of the MPEP.

Respectfully submitted,

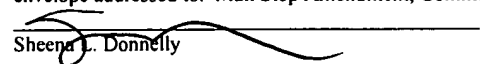


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Substitute form 1449A/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet 1 of 7

Complete if Known

Application Number	10/780,529
Filing Date	February 17, 2004
First Named Inventor	Jong-Rong Jan
Group Art Unit	2818
Examiner Name	Chuong A. Luu
Attorney Docket Number	9180-30

U.S. PATENTS AND PATENT PUBLICATIONS

Examiner Initials*	Cite No.	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY
		Number	Kind Code (if known)		
	1.	US-2001/0011764		Elenius et al.	08/2001
	2.	US-2001/0020745		Jiang et al.	09/2001
	3.	US-2001/0042918		Yanagida	11/22/2001
	4.	US-2002/0000665		Barr et al;	01/03/2002
	5.	US-2002/0056742		Rinne	05/2002
	6.	US-2002/0079576		Seshan	06/27/2002
	7.	US-2002/0086520		Chiang	07/2002
	8.	US-2002/0093098		Barr et al;	07/18/2002
	9.	US-2002/0096764		Huang	07/2002
	10.	US-2002/0197842		Kuo et al;	12/2002
	11.	US-2003/0000738		Rumsey et al	01/2003
	12.	US-2003/0060040		Lee et al;	03/27/2003
	13.	US-2003/0107137		Stierman et al;	06/2003
	14.	US-2003/0143830		Akram	07/2003
	15.	US-2003/124833		Ho-Ming et al.	07-03-2003
	16.	US-2003/143830		Salman	07-31-2003
	17.	US-2004/0053483		Nair et al;	03/2004
	18.	US-3,105,869		Branch et al;	10/1963
	19.	US-3,244,947		Slater	04/1966
	20.	US-3,259,814		Green	07/1966
	21.	US-3,274,458		Boyer et al;	09/1966
	22.	US-3,316,465		von Bermuth et al;	04/1967
	23.	US-3,458,925		Napier et al;	08/1969
	24.	US-3,461,357		Mutter et al;	08/1969
	25.	US-3,489,965		Helsdon	01/1970
	26.	US-3,501,681		Weir	03/17/1970
	27.	US-3,586,255		Mandal	10/1976
	28.	US-3,663,184		Wood et al;	05/16/1972
	29.	US-3,760,238		Hamer et al;	09/18/1973
	30.	US-3,770,874		Krieger et al;	11/06/1973
	31.	US-3,839,727		Herdzik et al.	10/01/1974
	32.	US-3,871,015		Lin et al;	03/1975
	33.	US-3,897,871		Zimnbauer	08/1975
	34.	US-3,916,080		Wakamatsu	10/1975
	35.	US-3,942,187		Gelsing et al;	03/02/1976
	36.	US-3,959,577		Frink	05/1976
	37.	US-3,986,255		Mandal	10/1976
	38.	US-3,993,123		Chu et al;	11/1976
	39.	US-4,074,342		Honn et al;	02/14/1978
	40.	US-4,113,578		Del Monte	09/12/1978
	41.	US-4,113,587		Chikamori	09/1978
	42.	US-4,168,480		De Lucia	09/1979
	43.	US-4,244,002		Sato et al;	01/1981
	44.	US-4,257,905		Christophorou et al;	03/1981
	45.	US-4,266,282		Henle et al;	05/1981
	46.	US-4,273,859		Mones et al;	06/1981
	47.	US-4,382,517		Welsch	05/1983
	48.	US-4,449,580		Reisman et al;	05/1984

Examiner Signature

Date Considered

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Substitute form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/780,529
				Filing Date	February 17, 2004
				First Named Inventor	Jong-Rong Jan
				Group Art Unit	2818
				Examiner Name	Chuong A. Luu
Sheet	2	of	7	Attorney Docket Number	9180-30

	49.	US-4,473,263	Sunstein	09/1984
	50.	US-4,505,029	Owyang et al;	03/1985
	51.	US-4,511,873	Baier et al;	04/1985
	52.	US-4,532,576	Reimer	07/1985
	53.	US-4,545,610	Lakritz et al;	10/1985
	54.	US-4,563,697	Miura	01/1986
	55.	US-4,565,901	Hirooka et al;	01/1986
	56.	US-4,657,146	Walters	04/1987
	57.	US-4,661,375	Thomas	04/1987
	58.	US-4,673,772	Satoh et al;	06/1987
	59.	US-4,733,813	Le Meau et al;	03/1988
	60.	US-4,752,027	Oschwend	06/1988
	61.	US-4,763,829	Sherry	08/1988
	62.	US-4,783,722	Osaki et al;	11/1988
	63.	US-4,817,850	Wiener-Avenear et al;	04/1989
	64.	US-4,830,264	Bitailou et al;	05/1989
	65.	US-4,840,302	Gardner et al;	06/1989
	66.	US-4,855,809	Malhi et al;	08/08/1989
	67.	US-4,878,611	LoVasco et al;	02/1989
	68.	US-4,893,403	Heflinger et al;	01/1990
	69.	US-4,897,508	Mahulikar et al;	01/1990
	70.	US-4,897,918	Osaka et al;	02/1990
	71.	US-4,927,505	Sharma et al;	05/1990
	72.	US-4,931,410	Tokanaga et al;	06/1990
	73.	US-4,940,181	Juskey, Jr. et al;	07/1990
	74.	US-4,948,754	Kondo et al;	08/14/1990
	75.	US-4,950,623	Dishon	08/1990
	76.	US-4,962,058	Cronin et al;	10/09/1990
	77.	US-4,972,988	Ohdate	11/1990
	78.	US-5,019,943	Fassbender	05/1991
	79.	US-5,022,580	Pedder	06/1991
	80.	US-5,024,372	Altman et al;	06/1991
	81.	US-5,046,161	Takada	09/1991
	82.	US-5,048,747	Clark et al;	09/1991
	83.	US-5,113,314	Wheeler et al;	05/12/1992
	84.	US-5,130,779	Agarwala et al;	07/1992
	85.	US-5,135,155	Kang et al;	08/1992
	86.	US-5,147,084	Behun et al.	09/15/1992
	87.	US-5,152,451	Derveaux et al;	10/1992
	88.	US-5,154,341	Melton et al;	10/1992
	89.	US-5,160,409	Moore et al;	11/1992
	90.	US-5,162,257	Yung	11/1992
	91.	US-5,171,711	Tobimatsu et al.	12/15/1992
	92.	US-5,194,137	Moore et al;	03/1993
	93.	US-5,216,280	Tanaka et al;	06/01/1993
	94.	US-5,227,664	Toshio	07/1993
	95.	US-5,234,149	Katz et al;	08/1993
	96.	US-5,239,447	Cotues et al;	08/1993
	97.	US-5,240,881	Cayetano et al;	08/1993
	98.	US-5,250,843	Eichelberger	10/05/1993
	99.	US-5,251,806	Agarwala et al.	10/12/1993
	100.	US-5,289,925	Newmark	03/1994
	101.	US-5,293,006	Yung	03/1994

Examiner Signature		Date Considered	
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				Examiner Name	Chuong A. Luu
Sheet	3	of	7	Attorney Docket Number	9180-30

	102.	US-5,325,265		Turlik et al;	06/1994
	103.	US-5,327,013		Moore et al;	07/05/1994
	104.	US-5,327,327		Frew et al;	07/05/1994
	105.	US-5,335,795		Chizen	08/1994
	106.	US-5,347,428		Carson et al;	09/13/1994
	107.	US-5,354,711		Heitzmann et al;	10/11/1994
	108.	US-5,381,946		Koopman et al.	01/17/95
	109.	US-5,391,514		Gall et al;	02/1995
	110.	US-5,406,701		Pepe et al;	04/18/1995
	111.	US-5,409,862		Wada, et al;	04/25/1995
	112.	US-5,424,920		Miyake	06/13/1995
	113.	US-5,432,729		Carson et al;	07/11/1995
	114.	US-5,453,582		Amano et al;	09/26/1995
	115.	US-5,475,280		Jones et al;	12/1995
	116.	US-5,492,235		Crafts et al;	02/1996
	117.	US-5,539,186		Abrami et al.	07/23/1996
	118.	US-5,542,174		Chiu	08/06/1996
	119.	US-5,547,740		Higdon et al;	08/1996
	120.	US-5,551,627		Leicht et al.	09/1996
	121.	US-5,553,769		Ellerson et al.	09/10/1996
	122.	US-5,557,502		Bannerjee et al;	09/1996
	123.	US-5,609,287		Izuta et al.	03-1997
	124.	US-5,616,962		Ishikawa et al;	04/01/1997
	125.	US-5,627,396		James et al;	05/1997
	126.	US-5,634,268		Dalal et al;	06/1997
	127.	US-5,680,296		Hileman et al;	10/1997
	128.	US-5,736,456		Akram	04/1998
	129.	US-5,739,053		Kawakita et al;	04/1998
	130.	US-5,744,382		Kitayama et al;	04/1998
	131.	US-5,751,556		Butler et al;	05/1998
	132.	US-5,773,359		Mitchell et al;	06/1998
	133.	US-5,793,116		Rinne et al;	08/11/1998
	134.	US-5,796,591		Dalal et al.	08/18/1998
	135.	US-5,812,378		Fielstad et al;	09/1998
	136.	US-5,851,911		Farnworth	12/1998
	137.	US-5,859,470		Ellerson et al.	01/12/1999
	138.	US-5,886,393		Merrill et al;	03/1999
	139.	US-5,891,756		Erickson et al.	04/06/1999
	140.	US-5,892,179		Rinne et al;	04/1999
	141.	US-5,898,574		Tan et al;	04/1999
	142.	US-5,902,686		Mis	05/1999
	143.	US-5,906,312		Zakel et al.	05/25/1999
	144.	US-5,920,125		Ellerson et al.	07/06/1999
	145.	US-5,923,539		Matsui et al;	07/1999
	146.	US-5,963,793		Rinne et al;	10/05/1999
	147.	US-5,990,472		Rinne	11/1999
	148.	US-6,027,957		Merritt et al.	02/2000
	149.	US-6,083,773		Lake	07/04/2000
	150.	US-6,117,299		Rinne et al.	09/12/00
	151.	US-6,121,069		Boyko et al.	09/19/2000
	152.	US-6,133,065		Akram	10/2000
	153.	US-6,134,120		Baldwin	10/2000
	154.	US-6,162,652		Dass et al.	12-2000

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Sheet	5	of	7	Attorney Docket Number	9180-30

	200.	FR	2 406 893		France	10/1978	Abstract
	201.	FR	2 688 628		France	09/1993	Abstract
	202.	FR	2 705 832		France	12/1994	Abstract
	203.	GB	2 194 387		Great Britain	03/1988	
	204.	GB	2062 963		Great Britain	05/1981	
	205.	GB	1288564		Great Britain	09/1972	
	206.	JP	07-226400			08/1995	Abstract
	207.	JP	63-222445		Japan	09/1988	Abstract
	208.	JP	57-197838		Japan	12/1982	Abstract
	209.	JP	59-154041		Japan	09/1984	Abstract
	210.	JP	4-150033		Japan	05/1992	Abstract
	211.	JP	04-133330			05/1992	Abstract
	212.	JP	54-128669		Japan	10/05/1979	Abstract
	213.	JP	6-116552		Japan	01/1986	Abstract
	214.	JP	55-111127		Japan	08/1980	Abstract
	215.	JP	57-73952		Japan	05/1982	Abstract
	216.	JP	07066207		Japan	01/1994	Abstract
	217.	JP	54050269			04-1979	Abstract
	218.	JP	63099558		Japan	04/1988	Abstract
	219.	JP	2000349111		Fujitsu. Ltd.	12-15-2000	Abstract
	220.	JP	2002203868		Toshiba Corp	07-19-2002	Abstract
	221.	WO	02/03461		Intel Corporation	01/10/2002	
	222.	WO	96/31905		PCT	10/1996	
	223.	WO	96/30933		WIPO	10/1996	
	224.	WO	93/22475		PCT	11/1993	
	225.	WO	98/06118		PCT	02/1998	
	226.	WO	97/03465			01/1997	Abstract
	227.	WO	93/02831		PCT	02/1993	

OTHER NON PATENT LITERATURE DOCUMENTS							
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published					T
	228.	Adema et al., <i>Flip Chip Technology: A Method for Providing Known Good Die with High Density Interconnections</i> , MCM '94 Proceedings, pp. 41-49.					
	229.	Arai et al. "Sn-Ag Solder Bump Formation for Flip-Chip Bonding by Electroplating" <i>Journal of the Electrochemical Society</i> 150(10): c730-c734 (2003)					
	230.	Audet, et al; <i>Low Cost Bumping Process for Flip Chip</i> , Proc. 1995 International Flip Chip, BGA, and Ado Pkg. Symposium ITAP 95, '95 Flip Chip, BGA, TAB & AP Symposium, pp 16-21 (1995).					
	231.	Chan "Investigation of Cr/Cu/Cu/Ni Under Bump Metallization for Lead-free Applications" <i>2002 Electronics Packaging Technology Conference</i> 270-275 (2002)					
	232.	Choi et al; <i>Electromigration of Flip Chip Solder Bump on Cu/Ni(V) A1 Thin Film Under Bump Metallization</i> ; 2002 Electronic Components and Technology Conference; pp 1201-1205.					
	233.	Datta, et al., <i>Electrochemical Fabrication of Mechanically Robust PbSn C4 Interconnections</i> , J. Electrochem. Soc., vol 142, No. 11, pp 3779-3785 (Nov. 1995).					
	234.	Drake et al; <i>An Electrostatically Actuated Micro-Relay</i> , Transducers '95, Eurosensors IX, The 8 th International Conference on Solid-State Sensors and Actuators, and Eurosensors IX, pp 380-383.					
	235.	Edelstein, D.C., et al; Derwent Publications Ltd. London, GB: AN 2002-308284 XP-002243726.					
	236.	Ezawa et al. "Eutectic Sn-Ag Solder Bump Process for ULSI Flip Chip Technology" <i>IEEE Transactions on Electronics Packaging Manufacturing</i> 24(4): 275-281 (2001)					
	237.	Ezawa et al; <i>Pb-Free Bumping by Alloying Electroplated Metal Stacks</i> ; 2003 Electronic Components and Technology Conference; pp 664-667.					
	238.	Graf "The Modern Dictionary of Electronics" Sixth Edition p. 386 (1984)					

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--------------------	--	-----------------	--

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Sheet	6	of	7	Attorney Docket Number	9180-30

239.	Greer "An Extended Eutectec Solder bump for FCOB" 1996 <i>Electronic Componets and Technology Conference</i> pp. 546-551 (1996)
240.	Guckel et al., <i>Electromagnetic Linear Actuators with Inductive Position Sensing for Micro Relay, Micro Value and Precision Positioning Applications</i> , Transducers '95, Eurosensors IX, The 8 th International Conference on Solid-State Sensors and Actuators, and Eurosensors IX, pp 324-327.
241.	Hashimoto et al; <i>Thermally Controlled Magnetization Microrelay</i> , Transducers '95, Eurosensors IX, The 8 th International Conference on Solid-State Sensors and Actuators, and Eurosensors IX, pp 361-364.
242.	Hirsch, <i>Tin-Lead, Lead and Tin Plating</i> , Metal Finishing, Guidebook Directory 1987, 55 th Guidebood-Directory Issue 1987, Mid Jan. 1987, vol. 85, No. 1A, ISSN 0026-0576, pp. 280-284.
243.	Hosaka et al; <i>Electromagnetic Microrelays: Concepts and Fundamental Characteristics</i> , Sensors and Actuators A, 40 (1994), pp 41-47.
244.	Howell et al: "Area Array Solder Interconnection Technology for the Three-Dimensional Silicon Cube", <i>Proceedings of the 1995 45th Electronic Components & Technology Conference</i> , pp 1174-1178.
245.	Inaba et al; <i>Solder Bump Formation Using Electroless Plating and Ultrasonic Soldering</i> , IEEE Transactions On Components, Hybrids, and Manufacturing Technology, vol. 13, No. 1, Mar. 1990, pp. 119-123.
246.	International Search Report and Written Opinion of the International Searching Authority for International patent application no. PCT/US2005/023041 mailed on October 11, 2005
247.	International Search Report and Written Opinion of the International Searching Authority for International Application no. PCT/US2005/012029 mailed on October 28, 2005
248.	International Search Report dated Dec. 9, 1992 of International Application. No. PCT/US 92/07722
249.	International Search Report for PCT/US 02/30697 mailed on June 24, 2003
250.	International Search Report for PCT/US 03/20790 mailed on June 2, 2004
251.	International Search Report for PCT/US2001/14674 mailed on January 23, 2002
252.	International Search Report, PCT/US01/43948 April 1, 2003
253.	Invitation to Pay Additional Fees and Partial International Search Report for International patent application no. PCT/US2005/012029 mailed on July 26, 2005
254.	Jung, et al., <i>The Influence of NiSn Intermetallics on the Performance of Flip Chip Contacts Using a Low Cost Electroless Nickel Bumping Approach</i> , IEPS Proceedings of the Technical Conference, 1996 Electronics Packaging Conference, Austin, Texas, pp 14-25 (Sep. 29-Oct. 1, 1996).
255.	Kang, et al; <i>Interfacial Reactions During Soldering With Lead-Tin Eutectic and Lead (Pb)-Free, Tin-Rich Solders</i> , <i>Journal of Electronic Materials</i> , vol 25, No. 7, pp 1113-1120 (1996).
256.	Kim et al. "Electrodeposition of Near-Eutectic SnAg Solders for Wafer-Level Packaging" <i>Journal of The Electrochemical Society</i> 150(9): c577-c584 (2003)
257.	Kiumi et al. "Processing, Properties, and reliability of electroplated Lead-Free Solder Bumps" <i>IEEE 2002 Inter Society Conference on Thermal Phenomena</i> pp. 909-914 (2002)
258.	Knüppel, <i>Rugged Design for Reliable Switching: Micro a Relay Sets New Automotive Standards</i> , Components XXIX (1994), No. 4, pp 30-32.
259.	Lineback, "3D IC Packaging Moves Closer to Commercial Use", <i>Electronic World News</i> , May 21, 1990, p 15.
260.	Mis, et al; <i>Flip Chip Production Experience: Some Design, Process, Reliability, and Cost Considerations</i> , ISHM '96 Proceedings, Proc. 1996 International Symposium on Microelectronics SPIE vol. 2920, pp 291-295 (1996).
261.	Multimedia Card Association, www.mmca.org .
262.	PCB Assembly, <i>Electronic Packaging & Production</i> , vol. 35, No. 1, p. 40 (Jan. 1995).
263.	SanDisk Corporation, SanDisk Flash Data Storage, San Disk Compact Flash™ and MultiMedia Card: Small Form Factor Solutions, 1999.
264.	Solomon "Providing high Density and Performance for Chip-to Sytem Interconnection" <i>Advanced Packaging</i> (Nov 2001) pp. 19-28
265.	Specification Sheet, <i>NaiS, Ultra Low Profile 2 Amp-Polarized Relay</i> , TK-Relays.
266.	Tessier et al; <i>Process Considerations in Fabricating Thin Film Multi-chip Modules</i> , Proceedings of the Technical Conference 1989 International Electronics Packaging Conference, 1989.
267.	Yung et al. "Flip-Chip Process Utilizing Electroplated Solder Joints" <i>Proceedings of the Technical Conference</i> (Sep 10-12, 1990) International Electronics Packaging Conference Malborough,

Examiner Signature		Date Considered	
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*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/780,529
				Filing Date	February 17, 2004
				First Named Inventor	Jong-Rong Jan
				Group Art Unit	2818
				Examiner Name	Chuong A. Luu
Sheet	7	of	7	Attorney Docket Number	9180-30

		Massachusetts pp. 1065-1073	
	268.	Yung et al; <i>Electroplated Solder Joints for Flip-Chip Applications</i> , Transactions on Components, Hybrids, and Manufacturing Technology, vol. 14 No. 3, Sep. 1991, pp 549-559.	
	269.	Zeng et al; <i>Six cases of reliability study of Pb-free solder joints in electronic packaging technology</i> , Reports: A Review Journal; Materials Science and Engineering R 38 (2002) pp 55-105.	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

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			Group Art Unit	2818	
			Examiner Name	Chuong A. Luu	
Sheet	4	of	7	Attorney Docket Number	9180-30

	155.	US-6,169,325	Azuma	01/2001
	156.	US-6,208,018	Ma et al;	03/2001
	157.	US-6,221,682	Danziger et al;	04/2001
	158.	US-6,222,279	Mis et al;;	04/2001
	159.	US-6,224,690	Andricacos et al.	05-01-2001
	160.	US-6,231,743	Etherington	05/15/2001
	161.	US-6,281,106	Higdon et al	08/28/2001
	162.	US-6,320,262	Murakami	11/20/2001
	163.	US-6,329,608	Rinne et al.	12-11-2001
	164.	US-6,335,104	Sambucetti et al;	01/2002
	165.	US-6,346,469	Greer	02/12/2002
	166.	US-6,388,203	Rinne et al;	05/14/2002
	167.	US-6,388,203	Rinne et al.	05-14-2002
	168.	US-6,389,691	Rinne et al.	05-21-2002
	169.	US-6,392,163	Rinne et al;	05/21/2002
	170.	US-6,415,974	Jao	07/2002
	171.	US-6,418,033	Rinne	07/09/2002
	172.	US-6,419,974	Silva et al;	07/2002
	173.	US-6,440,291	Henri et al.	08/27/2002
	174.	US-6,441,487	Elenius et al;	08/2002
	175.	US-6,452,270	Huang	09/2002
	176.	US-6,452,271	Jiang et al;	09/2002
	177.	US-6,492,197	Rinne	12/2002
	178.	US-6,495,018	Lowe	12/17/2002
	179.	US-6,521,996	Seshan	02/18/2003
	180.	US-6,620,722	Kuo et al;	09/2003
	181.	US-6,622,907	Fanti et al.	09/2003
	182.	US-6,668,449	Rumsey et al;	12/2003
	183.	US-6,762,122	Mis et al;	07/2004
	184.	US-6,793,792	Jones et al.	08/21/2004
	185.	US-6,835,643	Akram	12/2004
	186.	US-6,853,076	Datta et al.	02/2005
	187.	US-6,238,951	Caillat	05-29-2001

FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No.	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T
		Office	Number	Kind Code (if known)			
	188.	CN	1269607		English Abstract	01/03/2002	
	189.	DE	42 05 029 C		Germany	02/1993	Abstract
	190.	DE	197 41 436		Germany	12/1998	Abstract
	191.	DE	43 23 799 A1		Germany	01/1994	Abstract
	192.	EP	0 609 062 A1		Europe	08/1994	
	193.	EP	1 148 548		Advanced Interconnect Technology, Ltd.	10-24-2001	
	194.	EP	1 146 552		Agere Systems Guardian Corporation	10/17/2001	
	195.	EP	0 355 478		International Business Machines Corporation	02-28-1990	
	196.	EP	0 603 296		European	06/1994	
	197.	EP	0 782 191 A2		European	02/1997	
	198.	EP	0 757 386	A2		02/1997	
	199.	EP	0 736 972 A1		Europe	10/1996	
Examiner Signature					Date Considered		

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